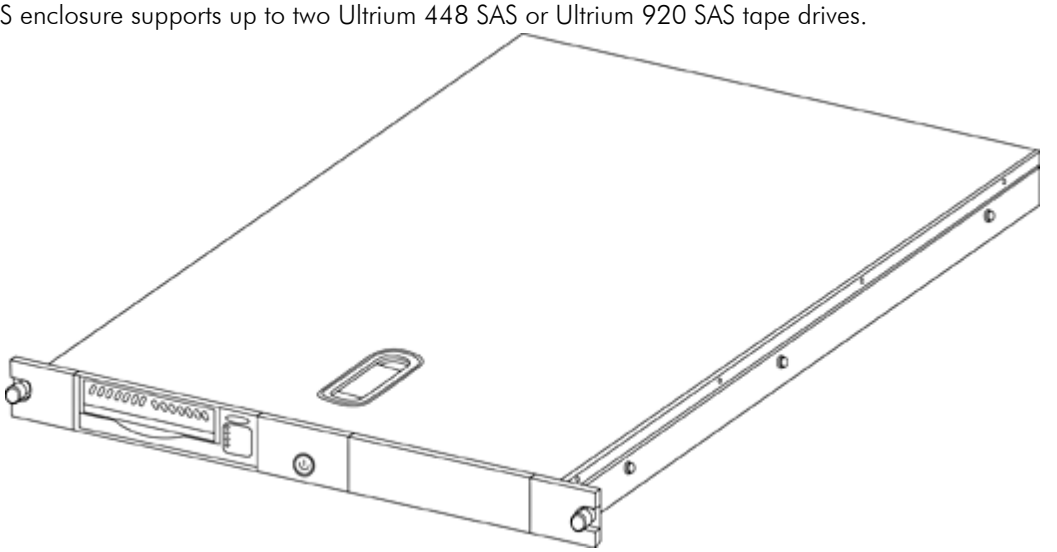
Overview

The HP StorageWorks Rack-Mount Kits provide a high-density, rack-mountable tape drive enclosure for direct-attach SCSI, USB, and SAS backup and archiving applications. Because these enclosures use standard internal tape drives, they provide a cost-effective means of mounting tape drives in rack server environments. These enclosures provide customers with scalability, allowing the customer to add drives and migrate to new tape technologies as their capacity and performance needs grow. HP StorageWorks Rack-Mount Kits are supported by ProLiant, HP Integrity, and AlphaServer platforms.

1U Rack-Mount Kit

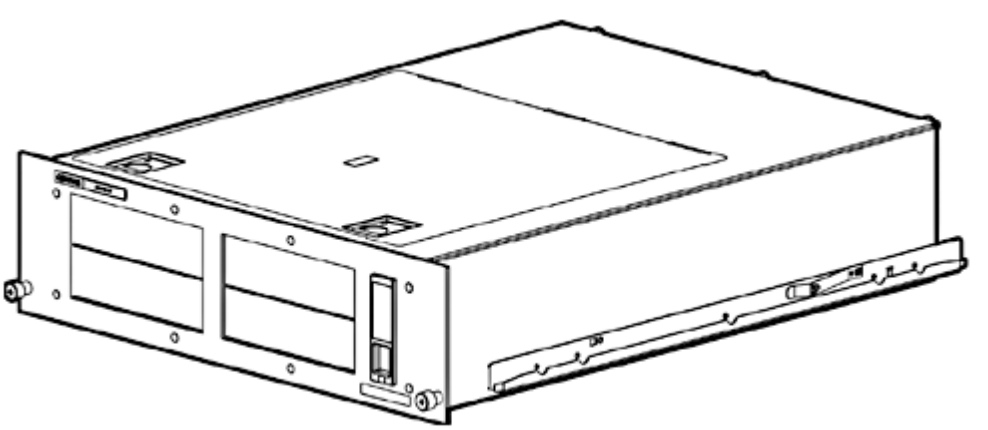
Available in SCSI, SAS and USB interfaces, the 1U Rack-Mount Kit accommodates up to two half-height internal tape drives and supports a range of tape technologies, including DAT, DLT VS, and half-height Ultrium, with a maximum capacity of 1.6 TB using two Ultrium 920 drives, at a 120 MB/s. (assuming 2:1data compression). The new USB enclosure supports DAT 24, DAT 40, DAT 72 and the new DAT 160 USB tape drives with a maximum capacity of 320 GB per backup session when using two DAT 160 USB drives. The 1U SAS enclosure supports up to two Ultrium 448 SAS or Ultrium 920 SAS tape drives.



HP StorageWorks 1U Rack-Mount Kit

3U Rack-Mount Kit

The 3U Rack-Mount Kit holds up to two full-height SCSI internal tape drives, four SCSI/SAS internal half-height tape drives, or a combination of one full-height and two half-height tape drives. This enclosure supports a wide range of tape technologies, including DAT, DLT VS, SDLT, and Ultrium, with a maximum capacity of 3.2 TB using four Ultrium 920 drives (assuming 2:1data compression).



HP StorageWorks 3U Rack-Mount Kit

Overview

What's New

- 1U Rack-Mount Kit support for DAT 160 SCSI and USB internal tape drives
- New preconfigured 1U DAT 160 USB Rack-Mount model (AG703A)

Models

NOTE: The HP StorageWorks Rack-Mount Kits are supported by HP ProLiant, AlphaServer, and HP-UX platforms.

HP StorageWorks Rack-Mount Tape Drive Kits for ProLiant and AlphaServer	HP StorageWorks 1U SCSI Rack-Mount Kit	A7445B
	HP Storage Works 1U USB Rack-Mount Kit	A8007A
	HP Storage Works 1U SAS Rack-Mount Kit	AE459A
	HP StorageWorks 3U SCSI Rack-Mount Kit	274338-B22
	HP StorageWorks 3U SAS Rack-Mount Kit	AG576A
	NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.	

Pre-Configured Models	HP StorageWorks 1U USB Rack-Mount Kit with one DAT 160 USB drive	AG703A
	HP StorageWorks 1U USB Rack-Mount Kit with one DAT 72 USB drive	AG594A
	HP StorageWorks 1U Rack-Mount Kit with one Ultrium 448 drive	DW028B
	HP StorageWorks 1U Rack-Mount Kit with one Ultrium 920 drive	EH903A
	HP StorageWorks 3U Rack-Mount Kit with one Ultrium 460 drive	350546-B22
	HP StorageWorks 3U Rack-Mount Kit with one Ultrium 960 drive	Q1595B
	NOTE: When ordering this product factory racked, an additional drive cannot be added in the factory. An additional drive can be installed by the customer.	
	NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.	

Key Features

1U SCSI Rack-Mount Kit

- High-density 1U rack-mount form factor
- The SCSI enclosure is capable of mixing technologies and is compatible with a wide range of single-ended and LVD SCSI internal tape drives, including:
  - DAT 24, DAT 40, DAT 72 and DAT 160 SCSI Tape Drives
  - DLT VS80, DLT VS160 SCSI Tape Drives
  - Ultrium 232, Ultrium 448 and Ultrium 920 SCSI Tape Drives
- SCSI enclosure Provides up to 1.6 TB of storage capacity (assuming 2:1 compression using two Ultrium 920 drives)
- Data transfer rates up to 864 GB/hr (assuming 2:1 data compression using two Ultrium 920 drives)
- SAS Upgrade Kit available in order to support one SAS drive and one SCSI drive.

1U USB Rack-Mount Kit

- High-density 1U rack-mount form factor
- The USB enclosure supports DAT 24 USB, DAT 40 USB DAT 72 and DAT 160 USB drives
- USB enclosure provides up to 320 GB of storage capacity, using two DAT 160 USB drives
- Data transfer rates of 49G/hour
- SAS Upgrade Kit available in order to support one SAS drive and one USB drive

1U SAS Rack-Mount Kit

- High-density 1U rack-mount form factor
- The SAS enclosure supports up to two Ultrium 448 SAS drives or two Ultrium 920 SAS drives.
- Provides up to 1.6 TB of storage capacity (assuming 2:1 compression using two Ultrium 920 drives)
- Data transfer rates up to 864 GB/hr (assuming 2:1 compression using two Ultrium 920 drives)

Models

3U SCSI Rack-Mount Kit	• 3U rack-mount form factor.
	• Supports two full-height or four half-height SCSI-based tape drives, or a combination one full-height and two half-height devices.
	• Includes new ease-of-use features for easier integration and management of HP tape devices
	• Compatible with a wide range of single-ended and LVD SCSI internal tape drives, including:
	  ○ DAT 24, DAT 40, DAT 72 and DAT 160 SCSI Tape Drives
	  ○ DAT 72x6 Tape Autoloader
	  ○ DLT VS80, DLT VS160 SCSI Tape Drives
	  ○ SDLT 320, SDLT 600 SCSI Tape Drives
	  ○ Ultrium 232, Ultrium 448, Ultrium 460, Ultrium 920 and Ultrium 960 SCSI Tape Drives
	• Provides up to 3.2 TB of storage capacity (assuming 2:1 data compression using four Ultrium 920 drives)
	• Supports up to four separate SCSI buses
	• Top access door and removable drive trays allow customers to slide unit out of rack for easier access to tape drives

3U SAS Rack-Mount Kit	• 3U rack-mount form factor • Supports four SAS-based, half-height tape drives (Ultrium 448 SAS; Ultrium 920 SAS) • Includes new ease-of-use features for easier integration and management of HP tape devices • Provides up to 3.2 TB of storage capacity (assuming 2:1 data compression using four Ultrium 920 drives) • Supports up to four separate SAS channels • Top access door and removable drive trays allow customers to slide unit out of rack for easier access to tape drives

Customer Benefits

- Small footprint allows the customer to consolidate external storage needs within a high-density form factor.
- Scalability allows customers to add tape drives and migrate to new tape drive technologies that meet their capacity and performance needs as their storage requirements change.
- Support of multiple tape drive technologies, which reduce risk and protect customers' investments.
- Support of multiple interfaces including SCSI, SAS, and USB.
- New ease-of-use features increase the customer's efficiency in configuring, integrating, and managing external storage devices.
- Affordable pricing allows customer to match their level investment in storage to their current or future business needs.
- Thoroughly tested and qualified with HP ProLiant, HP Integrity and AlphaServer platforms and industry leading software, resulting in easier installation and fewer problems.

Models

Family Comparison			
	1U Rack-Mount Kit	3U Rack-Mount Kit	Tape Array 5300
Maximum Capacity (compressed)	1.6 TB (SCSI) 320GB (USB) 800 GB (SAS)	3.2 TB (SCSI) 3.2 TB (SAS)	1.6 TB
Maximum Number of Drives	2 half-height	4 half-height or 2 full-height	4 half-height or 2 full-height
Drives Supported	DAT 24 DAT 40 DAT 72 DAT 160 DLT VS80 DLT VS160 Ultrium 215 Ultrium 232 Ultrium 448 Ultrium 920	DAT 24 SCSI (HH) DAT 40 SCSI (HH) DAT 72 SCSI (HH) DAT 160 (HH) DLT VS80 (HH) DLT VS160 (HH) SDLT 320 (FH) SDLT 600 (FH) Ultrium 215 (HH) Ultrium 232 (HH) Ultrium 448 (HH) Ultrium 920 (HH) Ultrium 460 (FH) Ultrium 960 (FH)	DAT 24 DAT 40 DAT 72 Ultrium 215, Ultrium 232 Ultrium 448 Ultrium 460 Ultrium 960 DVD+RW
Interface	USB, SAS, SCSI (LVD/SE)	SCSI (LVD/SE), SAS	SCSI (LVD/SE)
High-Availability Features	None	None	Offline hot-swap drives Redundant hot-swap PSU and fan (optional)

Product Highlights

Scalability	HP StorageWorks Rack-Mount kits support up to four tape drives in the 3U and two tape drives in the 1U. Tape drives can be added at any time, allowing flexibility to add capacity or change tape technologies at any time.
Configuration	SCSI: The standard bus configuration includes two SCSI buses with support for up to two drives per bus. Customers can purchase an LVD Cable Kit that will extend the unit to four SCSI buses supporting one drive per bus on the 3U Using independent SCSI buses for each drive provides the best performance. SAS: The standard configuration includes two SAS channels on the 1U and four SAS channels on the 3U. USB: The standard configuration includes two USB ports on the 1U.
Ease-of-Use Features	HP StorageWorks Rack-Mount kits include features designed to provide for easier access and management of installed tape drives. The top access door allows the customer to access the drives (or drive area) while the enclosure remains in the rack. Each unit also includes two slide-out drive trays that allow for easy removal of the internal tape drives through the top access door. LEDs on the front panel indicate when the power is on and when service is required.
Compatibility and Integration Testing	HP StorageWorks Rack-Mount Kits use in-house technology, which ensures the customer of full compatibility with HP ProLiant, Integrity and AlphaServer platforms. HP thoroughly tests products with leading backup software and operating systems.

HP Server Compatibility

NOTE: Connecting a Rack-Mount Kit to any of the supported ProLiant, AlphaServer, and HP Integrity platforms may require the use of a secondary controller, host bus adapter, or Smart Array controller. Please see the list of supported controllers, host bus adapters, and Smart Array controllers at www.hp.com/go/connect to select the appropriate model.

HP StorageWorks Rack-Mount Kits are supported on the following classes of HP systems:

- HP ProLiant servers
- HP Alpha servers
- HP rx and rp series servers
- HP tc series servers

For details of which tape drive models work with which systems, including third-party systems, visit http://www.hp.com/go/connect for the latest hardware compatibility information

OS Support	Operating system compatibility will depend on the drives used in the rack enclosure. For the latest list of servers, operating systems, and backup software that support HP StorageWorks tape drives, check the tape backup compatibility pages on our web site at: http://www.hp.com/go/connect.
Software Support	Backup application compatibility also depends on the drives used in the Rack-Mount Kit. For the latest list of servers, operating systems, and backup software that support HP StorageWorks tape drives, check the tape backup compatibility pages on our web site at: http://www.hp.com/go/connect.

Service and Support, HP Care Pack, and Warranty Information

Warranty

3-0-0 (Three year parts)

Warranty Upgrade Options

- **Response** - Upgrade on-site response from next business day to same day 4-hours
- **Coverage** - Extend hours of coverage from 5 days x 9 hours to 7 days x 24 hours
- **Duration** - Select duration of coverage for a minimum period of 1year or multiple years

HP Care Pack Information

- HP Care Pack is defined as an upgrade to the product warranty attribute, available for a specific duration and hours of coverage
- HP Care Pack is not available for less than the product's warranty duration
- HP Care Pack is available for sale anytime during the warranty period for most products, but the commencement date will be the same as the Warranty Start Date (delivery date to end user customer). Proof of purchase may be required
- HP Care Pack services are prepaid
- NOTE: For additional HP Care Pack (hardware & software) information, as well as orderable part numbers, please refer to the URL listed below: http://h18005.www1.hp.com/services/carepaq/index.html

Support Services

HP Services provides a three-year, limited warranty, fully supported by a worldwide network of resellers, service providers, and hardware technical phone support during the warranty period. In addition, available service offerings include a full range of HP Care Pack packaged hardware and software services or customized service offerings to cover:

- Installation and start up
- Extended coverage hours and enhanced response times
- System management and performance services
- Availability and recovery services

1U Rack-Mount Carepacks

HP 3Year, 4Hr response, 13x5 coverage, Onsite	UB135E
HP 3Year, Next day response, Onsite	UB136E
HP 3Year, 4Hr response, 24x7 coverage, Onsite	UB137E
HP 3Year, 6H CTR response, Onsite	UB138E
HP 4Year, 4Hr response, 13x5 coverage, Onsite	UB140E
HP 5Year, 4Hr response, 24x7 coverage, Onsite	UB141E
HP 5Year, 4Hr response, 13x5 coverage, Onsite	UB144E
HP 4Year, 4Hr response, 24x7 coverage, Onsite	UB148E

3U Rack-Mount Carepacks

HP 3Year, 4Hr Next day response, Onsite	U6335E
HP 3Year, 4Hr response, 13x5 coverage, Onsite	U6336E
HP 3Year, 4Hr response, 24x7 coverage, Onsite	U6337E
HP 3Year, 6H CTR response, Onsite	U9285E
HP 4Year, 4Hr response, 13x5 coverage, Onsite	U9354E
HP 4Year, 4Hr response, 24x7 coverage, Onsite	U9355E
HP 5Year, 4Hr response, 13x5 coverage, Onsite	U9356E
HP 5Year, 4Hr response, 24x7 coverage, Onsite	U9357E
HP Installation	U2090E

Step 1 - 1U/3U Rack-Mount Kit

Select one:

Model	Model Description	Part Number
1U USB Rack-Mount Kit (Carbon)	USB rack-mountable enclosure (1U) with power supply, fans, power cord, quick deploy rail kit including sliding universal rails for ProLiant, AlphaServer and Rack System/E racks, an ambidextrous cable management arm and quick release levers for fast and easy serviceability and in-rack tool-less access, user's guide on CD and documentation. NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.	A8007A
1U SCSI Rack-Mount Kit (Carbon)	Wide SCSI LVD rack-mountable enclosure (1U) with power supply, HD - VHDC 12' SCSI cable, fans, power cord, quick deploy rail kit including sliding universal rails for ProLiant, AlphaServer and Rack System/E racks, an ambidextrous cable management arm and quick release levers for fast and easy serviceability and in-rack tool-less access, user's guide on CD and documentation. NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.	A7445B
1U SAS Rack-Mount Kit (Carbon)	Mini- 8088 SAS rack-mountable enclosure (1U) with power supply, fans, power cord, 4 metre SAS external split cable, quick deploy rail kit including sliding universal rails for ProLiant, AlphaServer and Rack System/E racks, an ambidextrous cable management arm and quick release levers for fast and easy serviceability and in-rack tool-less access, user's guide on CD and documentation. NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.	AE459A
3U SCSI Rack-Mount Kit (Carbon)	Wide SCSI LVD rack-mountable enclosure (3U) with power, and fan, Power Cord, 9000 and 10000 series rack compatible rail kit (Optional rail kit available for AlphaServer Rack and Rack System/E) User's Guide on CD, Documentation. NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.	274338-B22
3U SAS Rack-Mount Kit (Carbon)	3Gb/sec SAS rack-mountable enclosure (3U) with power, and fan, Power Cord, 9000 and 10000 series rack compatible rail kit (Optional rail kit available for AlphaServer Rack and Rack System/E) User's Guide on CD, Documentation. NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.	AG576A

Configuration Information

Step 2 – Additional/Related Options

Select each required option with quantities specified

NOTE: The following is a list of additional/related options. Some may be discontinued.

	Description	Part Number
Tape Drives	DAT 24 USB Internal Tape Drive NOTE: Supported by the 1U USB Rack-Mount Kit only.	DW069A
	DAT 40 SCSI Internal Tape Drive NOTE: Supported by the 1U SCSI and 3U Rack-Mount Kits only.	C5686C
	DAT 40 USB Internal Tape Drive NOTE: Supported by the 1U USB Rack-Mount Kit only.	DW022A
	DAT 72 SCSI Internal Tape Drive NOTE: Supported by the 1U SCSI and 3U Rack-Mount Kits only.	Q1522B
	DAT 72 USB Internal Tape Drive NOTE: Supported by the 1U USB Rack-Mount Kit only.	DW026A
	DAT 160 SCSI Internal Tape Drive NOTE: Supported by the 1U SCSI and 3U Rack-Mount Kits only.	Q1573A
	DAT 160 USB Internal Tape Drive NOTE: Supported by the 1U USB Rack-Mount Kit only.	Q1580A
	DLT VS160 Internal Tape Drive NOTE: Supported by the 1U SCSI and 3U Rack-Mount Kits only.	A7569B
	SDLT 320 Internal Tape Drive NOTE: Supported by the 3U Rack-Mount Kits only.	257319-B21
	SDLT 600 Internal Tape Drive NOTE: Supported by the 3U Rack-Mount Kits only.	A7518B
	Ultrium 232 Internal Tape Drive NOTE: Supported by the 1U SCSI and 3U Rack-Mount Kits only.	DW064A
	Ultrium 448 Internal Tape Drive NOTE: Supported by the 1U SCSI and 3U Rack-Mount Kits only. The 3U Rack-Mount Kit requires the purchase of DW063B SCSI cable kit (sold separately).	DW016A
	Ultrium 448 SAS Internal Tape Drive NOTE: Supported by the 1U SAS and 3U SAS Rack-Mount Kit.	DW085A
	Ultrium 920 SCSI Internal Tape Drive NOTE: Supported by the 1U SAS Rack-Mount Kit.	EH841A
	Ultrium 920 SAS Internal Tape Drive NOTE: Supported by the 1U SAS and 3U SAS Rack-Mount Kit.	EH847A
	Ultrium 460 SCSI Internal Tape Drive NOTE: Supported by the 3U Rack-mount Kits only. Requires the purchase of DW063B SCSI cable kit (sold separately).	Q1518B
	Ultrium 960 SCSI Internal Tape Drive NOTE: Supported by the 3U Rack-mount Kits only. Requires the purchase of DW063B SCSI cable kit (sold separately).	Q1538A

Configuration Information

Media	HP DDS-3 data cartridge	C5708A
	HP DDS-4 data cartridge	C5718A
	HP DAT 72 data cartridge	C8010A
	HP DAT 160 data cartridge	C8011A
	HP DDS Universal cleaning cartridge	C5709A
	HP DLTIV data cartridge	C5141F
	HP DLTtape VS1 160GB Data Cartridge (for use with the DLT VS160 Drive)	C8007A
	HP DLT VS1 Cleaning Cartridge (for use with the DLT VS160 Drive)	C8016A
	HP DLT VS cleaning cartridge NOTE: For DLT VS drive only.	C7998A
	HP DLT cleaning cartridge NOTE: For non-DLT VS drives only.	C5142A
	HP SDLT 220-320 GB data cartridge	C7980A
	HP Super DLTtape II 600GB data cartridge	Q2020A
	HP SDLT cleaning cartridge (for use with the SDLT 320 and SDLT 600)	C7982A
	HP Ultrium 200GB data cartridge	C7971A
	HP Ultrium 400GB data cartridge	C7972A
	HP Ultrium 800 GB RW data cartridge (for use with the Ultrium 960 Drive)	C7973A
	HP Ultrium 800 GB WORM cartridge (for use with the Ultrium 960 Drive)	C7973W
	HP Ultrium Universal Cleaning Cartridge	C7978A
Cable Kit - Optional cable to add additional SCSI buses to the 3U Rack-mount Kits.	HP Ultra 320 SCSI Cable Kit A field upgrade kit required when going from 2 to 4 ports on the 3U rack-mount kit. This cable has been included with 3U Rack-Mount Kits beginning May 2007 and is only required for enclosures purchased before this date. Also required for the following rack-mount kits when adding ultra 160 or greater drives (350546-B21, 350545-B21, 350544-B21, , 274338-B21), or to any of the 5U Rack-Mount Kits.	DW063B
USB Cable Kit	1U USB Cable Option Kit This cable kit can be purchased to convert a 1U SCSI rack-mount kit to a USB interface to support the DAT USB drives. It includes 1 - 5 metre USB cable, 1- plastic grommet, 1- metallic panel, and documentation. All pieces are pre-assembled for easy implementation.	396114-B21
SAS Upgrade Kit	1U SAS Upgrade Kit This upgrade kit provides the tools needed to upgrade a 1U SCSI rack-mount enclosure to a SAS interface. It includes cables and interface for back panel.	AE463A

Configuration Information

NOTE: Go to http://www.hp.com/go/connect/ to confirm what cable is needed.DED

Required External SCSI Cables - Required cables needed to connect the enclosure/drives to the host(s). Once cable per bus is needed.	68-pin HD to 68-pin VHDCI, 12ft NOTE: For SE and LVD SCSI tape devices.	341177-B21
Optional External SAS Cable	Mini SAS 4M External Split Cable 3X by1X (3Hard Disk Drive x 1 Tape Drive) NOTE: This cable is needed to connect SAS enclosure/drives to the motherboard on certain servers. See http://www.hp.com/go/connect for support details.	AE464A
	External Split 4M SAS Cable for ProLiant DL360G5 and DL365G5 (mini-SAS connector) NOTE: This cable is required to connect SAS enclosure/drives to the motherboard on HP ProLiant DL360G5 and DL365G5 SAS servers	AG452A
	External 4M Hybrid SAS Cable 8088/8470 NOTE: This cable is needed to connect to SAS HBA external port on server	AE468A
Rail Kit	3U Alpha Rail Kit NOTE: Required for installation of 3U Rack-Mount Kit in AlphaServer rack. NOTE: The rail kit option listed above can also be used to install HP Rack-Mount Kits in HP Rack System/E cabinets.	280571-001
Controllers/Host Bus Adapters	**Intel-Based Servers** NOTE: This is a list of supported adapters/controllers. Some may be discontinued. Go to http://www.hp.com/go/connect for the latest list of supported adapters/controllers.	
	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
	AlphaServers	
	Single Channel PCI To Ultra SCSI, UWSE	SN-KZPBA-CA
	Single Channel PCI To SCSI UWD (Fast20 Diff)	SN-KZPBA-CB
	Comb SCSI/Ether Dual Channel	KZPCM-DA
	Single Channel Ultra2 SCSI, LVD	3X-KZPCA-AA
	Dual Channel PCI Ultra3 LVD Multimode	3X-KZPEA-DB
	PCI three-port RAID (FWSE) Controller with 8-MB cache memory	KZPAC-CB
	PCI one-port RAID (FWSE) Controller	KZPAC-AA
	PCI three-port RAID (FWSE) Controller with 4-MB cache memory	KZPAC-CA

You will need to connect an Ultrium 460 or Ultrium 960 to a dedicated SCSI Host Bus Adaptor (HBA) that is Ultra 160 HBA or higher. To supply data to the drive fast enough to achieve full performance from the tape drive, you will need at least eight disks as part of a RAID 5 array with read cache enabled. You can test the speed of your system with tools provided at http://www.hp.com/support/pat or with HP's StorageWorks Library and Tape Tools application.

To achieve full performance from your tape drive, do not use the native backup application within the operating system (e.g., NT® Backup, Windows® 2000 Backup). For full details of supported backup applications, see http://www.hp.com/products1/storage/compatibility/tapebackup/index.html

Technical Specifications

		1U Rack-Mount	3U Rack-Mount
Dimensions	Form Factor	1U - Rack-Mount	3U - Rack-Mount
	Physical (HxWxD)	1.7 x 19 x 25.3 in (4.32 x 42.88 x 64.14 cm)	5.2 x 16.8 x 23.0 in (13.20 x 42.70 x 58.40 cm)
	Shipping (HxWxD)	12.0 x 23.5 x 33.5 in (30.48 x 59.69 x 85.09 cm)	15.8 x 23.8 x 33.5 in (40.01 x 60.33 x 85.09 cm)
Weight	Out of box	17.8 lb (8.07 kg)	27 lb (12.3 kg)
	Shipping	25 lb (11.3 kg)	45 lb (20.5 kg)
Interface	SCSI/USB/SAS Interface	Wide SCSI LVD/SE USB2.0 Mini-SAS	Wide SCSI LVD & SE Mini-SAS
	SCSI/USB/SAS Connector	Two 68-pin HD Two USB 2.0 ports Two mini-SAS 8088 connectors	Two 68-pin HD standard, Can be expanded to more Four mini-SAS 8088 connectors
	Ports	1U SCSI--Two SCSI buses, 1 half-height drive per bus or can be configured with 2 half height on one bus. 1U USB-Two USB buses, 1 half-height drive per bus. 1U SAS - Two SAS ports, 1 half-height drive per port	3U SCSI - Two SCSI buses, 2 half-height or 1 full-height drive per bus. Optional: Can increase to four SCSI buses with one half-height drive per bus with LVD Cable Kit. 3U SAS - Four SAS ports, 1 half-height drive per port
Power Specifications	Power Requirements	140 Watts, max 100 to 240 Vrms Nominal Line Voltage 90 to 264 Vrms Range Line Voltage 47/63 Hz 2.4 A max Input Current (@120 VAC)	200 Watts, max 100 to 240 Vrms Nominal Line Voltage 90 to 264 Vrms Range Line Voltage 47/63 Hz 3.1 A max Input Current
Environmental Specifications	Temperature	Operating	41° to 104° F (5° to 40° C)
		Storage	-22° to 104° F (-30° to 60° C)
	Non-Condensing Humidity	Operating	20% to 80%
		Storage	5% to 95%

Technical Specifications

Drives Supported	1U Rack-Mount	3U Rack-Mount	Capacity (native)	Transfer rate (native)	Form Factor
	DAT 24 SCSI	DAT 24 SCSI	12 GB	1 MB/s	Half-Height
	DAT 24 USB	-	12 GB	1 MB/s	Half-Height
	DAT 40 SCSI	DAT 40 SCSI	20 GB	3.2 MB/s	Half-Height
	DAT 40 USB	-	20 GB	3.2 MB/s	Half-Height
	DAT 72 SCSI	DAT 72 SCSI	36 GB	3.2 MB/s	Half-Height
	DAT 72 USB	-	36 GB	3.2 MB/s	Half-Height
	DAT 160 SCSI	DAT 160 SCSI	80 GB	6.9 MB/s	Half-Height
	DAT 160 USB	-	80 GB		Half-Height
	DLT VS80	DLT VS80	40 GB	3 MB/s	Half-Height
	DLT VS160	DLT VS160	80 GB	16 MB/s	Half-Height
	Ultrium 215	Ultrium 215	100 GB	7.5 MB/s	Half-Height
	Ultrium 232	Ultrium 232	100 GB	16 MB/s	Half-Height
	Ultrium 448 SCSI/SAS	Ultrium 448 SCSI	200 GB	24 MB/s	Half-Height
	Ultrium 920 SCSI/SAS	Ultrium 920 SCSI/SAS	400 GB	60 MB/s	Half-Height
	-	Ultrium 460	200 GB	30 MB/s	Full-Height
	-	Ultrium 960	400 GB	80MB/s	Full-Height
	-	SDLT 320	160 GB	16 MB/s	Full-Height
	-	SDLT 600	300 GB	36 MB/s	Full-Height

Max Number of drives	1U Rack-Mount	3U Rack-Mount
	Two half-height internal drives	Two full-height internal drives or Four half-height internal drives

LED Indicators	1U Rack-Mount	3U Rack-Mount
	Power Supply	Power Supply

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